

L A R S O S B E R G

INTEGRATING SOCIAL AND ECONOMIC POLICY:

MICRO TRANSITIONS AND MACRO POLICY

IN A FEDERAL STATE

One of the problems of agenda setting in social policy is that the discussion tends to focus on specific programs and their influence on individual outcomes — e.g., the probability that particular types of individuals will make transitions onto or off social assistance, or whether training will accelerate entry into the labour force. Most analyses tend to emphasize the characteristics of individuals, and the explanatory role of personal characteristics in predicting outcomes. In sum, social policy discussion often focusses on the supply side of labour markets.

I want to focus on the demand side of labour markets. I do so because I take it as a major objective of social policy that individuals should move from dependence on social assistance to paid employment, and I take it as obvious that whatever their motivation or training, individuals cannot make such a transition if no jobs are available. To be more precise, if there are not enough jobs available, social assistance clients will remain on social assistance, because the jobs that do exist will go to those who are favoured by age, gender, race, class background and/or education.

The plan of this essay is to begin by summarizing the existing state of Canadian labour markets and medium-term projections of future macroeconomic performance in Canada. Since the continuation of cur-

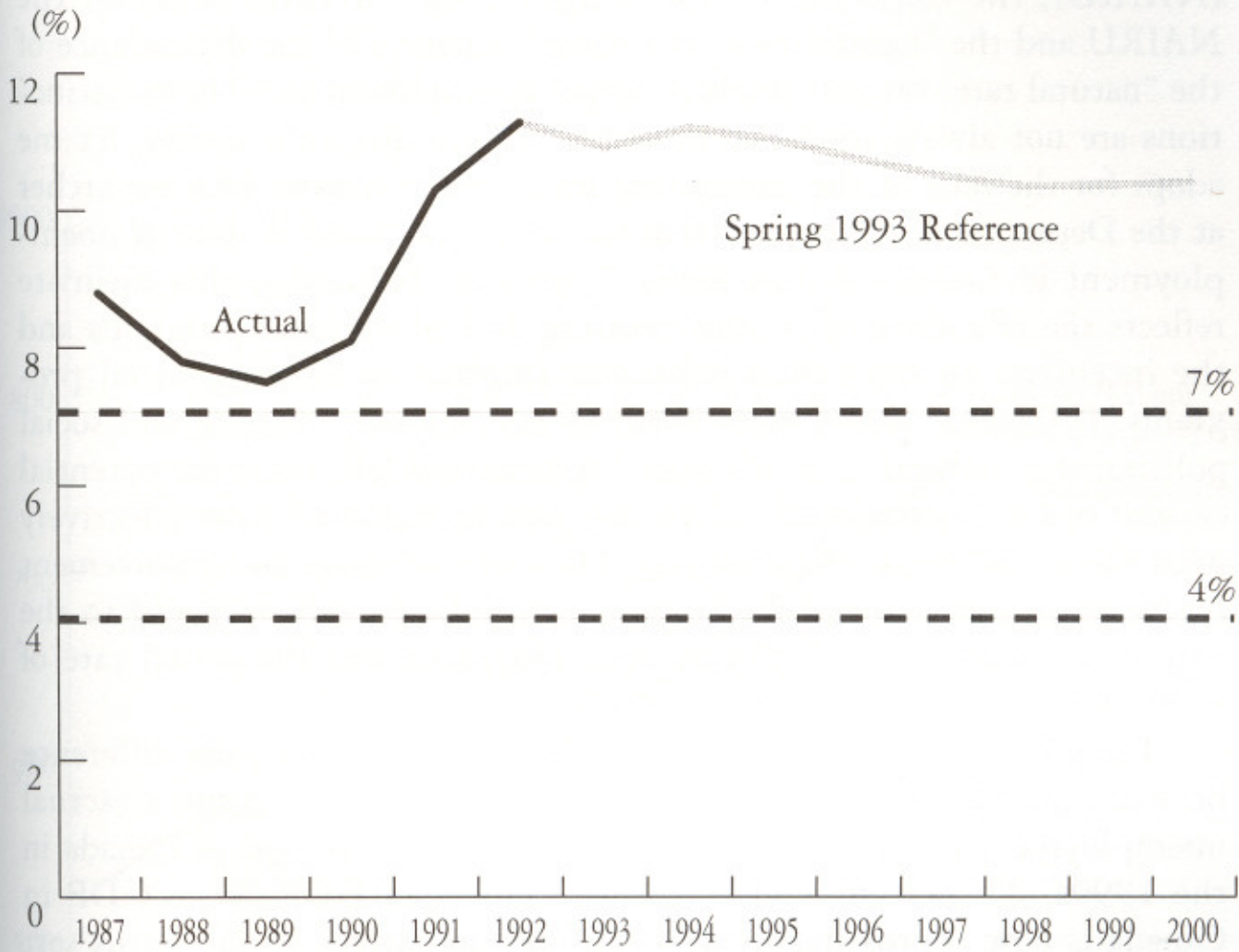
rent macroeconomic policy implies a continuation of double-digit unemployment rates, section two discusses the implications of this trend for social policy. High unemployment, especially when it persists for many years, adversely affects the abilities of individuals to cope in social life and in the labour market. High unemployment diminishes the probability that remedial programs, or altered incentives, will be effective in assisting transitions to paid employment; and the output loss of high unemployment constrains the fiscal resources available for social transfers or remedial programs.

Given that most social policy is delivered at the provincial level and macroeconomic policy is set by the federal government, section three considers the time consistency of social and economic policy and the coordination of policy in a federal system. In Canada, the short-run macroeconomic demand management objective of zero inflation has taken precedence over other objectives, and has produced a rate of unemployment in labour markets that dooms long-run structural adjustment policies to failure. Provincial governments cannot deliver, in the short run, the jobs which their electorates demand, while the federal government continues to bewail the lack of success in provincial social assistance reform and training policies that stems from its very own macroeconomic policies. Section four is a conclusion.

THE LABOUR MARKET IN THE 1990S

Figure 1 is taken from the 1993 Reference Outlook Forecast of Informetrica Ltd. All forecasts are conditional, and changes in economic policy, or in the international economic environment, could produce different outcomes. The Reference Outlook Forecast basically assumes the continuation of current macroeconomic policy. If monetary policy in Canada remains focussed on eliminating inflation and fiscal policy remains preoccupied with reducing the federal budget deficit, the implication of restrictive macroeconomic policy settings, assumed constancy of the exchange rate (at US\$0.79) and modest growth in the world economy is a forecast of annual GDP growth of 3.2 percent over the period 1993 to 1997 (in constant dollars). Since labour productivity is expected to grow at 1.4 percent per annum, the growth in employment (at 1.8 percent) is only marginally greater than growth in the labour force (1.7 percent). As a result, unemployment is forecast to decrease with painful

Figure 1
**Canadian
 Unemployment Rate**



Unemployment (000s)

<u>year</u>	<u>number</u>
1992	1,556
1996	1,586
2000	1,626

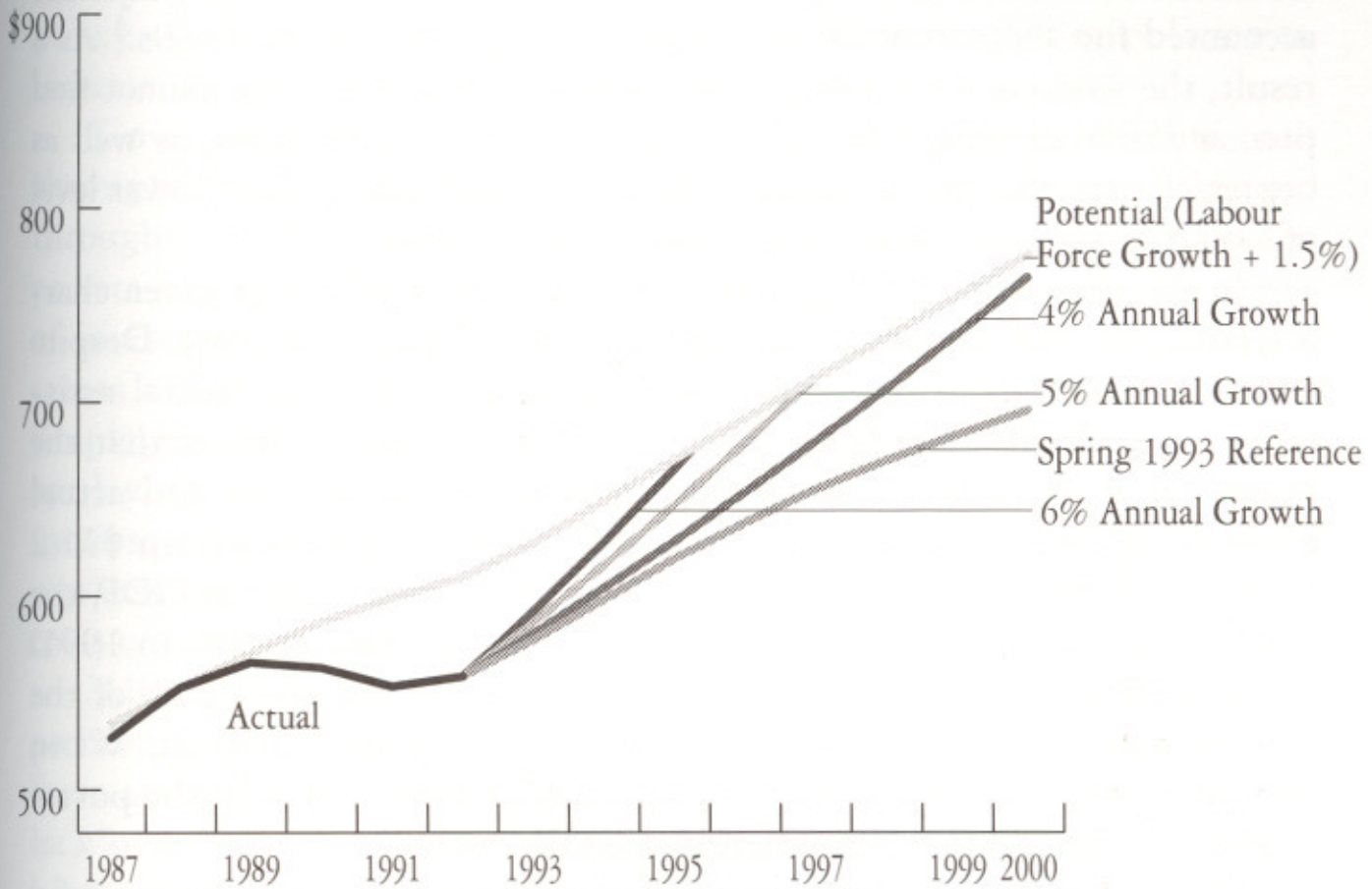
SOURCE: Statistics Canada (1987-1992), Informetrica Limited (1993-2000)

slowness between 1993 and 1997, averaging 10.9 percent for the period. It is only when the model is run out into the very long run, to 2020, that demography kicks in and the slower rate of labour force growth of an aging population eventually produces a decline in unemployment rates (to 8.2 percent).

In my own work, I have emphasized the uncertainty surrounding estimates of the non-accelerating inflation rate of unemployment (NAIRU), the importance of distinguishing carefully between the NAIRU and the "natural rate" of unemployment and the dependence of the "natural rate" on past levels of actual unemployment.¹ These distinctions are not always made, so in order to minimize controversy, let me adopt for the sake of the current argument the estimates of a researcher at the Department of Finance² that the long-run "natural" rate of unemployment in Canada is now about 7 percent. Naturally, this estimate reflects the efficiency of current training and educational programs and the incentives to individual behaviour implicit in existing social programs. If Canada adopts more effective educational, training and social policies, the "natural" rate of unemployment will fall, since the potential capabilities of unemployed individuals will be matched more effectively with the actual needs of employers. However, without an improvement in the aggregate demand for labour, such policies will only add to the gap between the natural rate of unemployment and the actual rate of unemployment.

The Okun's law approximation of the output gap (i.e., the difference between potential output and actual output) is 2.5 percent x (actual unemployment rate minus natural unemployment rate) or, in Canada in the 1990s, 2.5 percent x (11-7) = 10 percent of GDP. Since GDP in Canada is now approximately \$700 billion (in current dollars), this sort of "back of the envelope" calculation produces an estimated output gap of about \$70 billion per annum. One gets a very similar estimate from large, multi-equation econometric models. Figure 2 indicates that the output gap, in 1993 dollars, is approximately \$70 billion in 1993, and the fact that actual output is only expected to grow at approximately the growth rate of potential output implies that the output gap will not shrink appreciably for the remainder of the 1990s.

Figure 2
Potential and Actual Gross Domestic Product
(Billions of 1986 \$)



SOURCE: Informetrica Limited, Spring 1993 Reference Outlook.

IMPLICATIONS OF HIGH UNEMPLOYMENT FOR SOCIAL POLICY

Demand for Social Services

As unemployment increases, it is obvious that the labour income of households decreases, because of job loss, the non-entry of individuals into paid employment and the impact of depressed labour markets on wage rates. In addition, the ready availability of a queue of qualified potential employees has made it easier for employers to shift to a "just-in-time" labour strategy, in which they hire part time, casual or contract employees, as and when necessary to fill in peaks in labour demand. The Economic Council of Canada estimated that "non-standard" forms of employment accounted for 44 percent of the employment growth of the 1980s.³ As a result, the workers who shift to the casual sector because they cannot find permanent employment face greater *insecurity* of income flows, as well as depressed expectations of earnings. Both the instability and the lower level of labour earnings increase the demand for social services.

In the short run, the implication is that households with given characteristics face an increased risk and a greater depth of poverty. Despite the recent increase in Unemployment Insurance (UI) and social assistance expenditures, the National Council of Welfare estimates that the poverty gap (the difference between a poverty line income and actual incomes, taking into account all poor households) increased from \$11.2 billion in 1990 to \$13.4 billion in 1991.⁴ As a percentage of GDP, the poverty gap (at 1.6 percent in 1990 and just under two percent in 1991) is far smaller today than the output gap. However, a good part of the poverty gap can be attributed directly to excess unemployment. When unemployment is 7.5 percent nationally (as in 1981 or 1989) the poverty gap is about 1.3 percent of national GDP.

In the longer run, high unemployment increases the demand for social services because the characteristics of households change. Prolonged unemployment does bad things to people. The correlation between high unemployment and mental and physical illness, suicide, crime, drug abuse, child abuse, and divorce is well established.⁵ For present purposes, the important issue is that all these events increase the probability that individuals will have to rely on social assistance and decrease the probability that they will be able to make a successful transition to paid employment.

The Success of Training Initiatives

In the 1960s, one of the slogans of the "War on Poverty" in the US was that "a rising tide lifts all boats." At that time, there was a conscious decision to stimulate the macroeconomic demand for labour in order to ensure that jobs would be there for the graduates of the new training programs for the disadvantaged. In the 1960s there was a greater consensus on the efficacy of macroeconomic policy than was fashionable in the 1970s and 1980s, and with hindsight it has become apparent that although a rising tide may lift many boats, some will still need repairs. However, in the 1990s it is also clear that without enough water, even the best repaired boats do not float at all. Emphasis on the supply side of labour markets — on education, training and the incentives of social policy — is important, but when jobs are not available, policies to increase the supply of trained labour are pointless.

Government policies affect the quantity and quality of training both through the amount of training governments provide directly, and through government influence on the level of training provided in the private sector. Many commentators have noted the relatively low levels of investment in training by Canadian employers. What one needs to stress are the reasons for this strategic choice by Canadian firms. Employers who face depressed conditions in product markets, and who are laying off skilled workers, have no need for training programs to increase their supply of skills. Employers who have a queue of qualified workers available in the labour market have no incentive to bear the costs of establishing training programs.

Although it may be widely recognized that in the long run Canadian productivity and Canadian jobs depend upon the skill level of the labour force and the quality of training programs, it is pointless to bemoan the lack of a "training culture" in Canadian industry if the maintenance of high unemployment, for prolonged periods of time, means that it is not rational for employers to invest heavily in training. It should not be particularly surprising that employers do not usually bother with the expense of an ongoing training program when excess supply of labour means that the skills that they need are easily available on the open market. As the Canadian Labour Market and Productivity Centre has noted, labour market mismatch may have been an important source of unemployment in the 1988/89 period in Canada, but the recession has created a generalized surplus of labour in almost all skill categories.⁶

Government provides training directly to individuals via the standard system of primary, secondary and post-secondary education and also through the specialized set of remedial programs provided to social assistance clients and, increasingly, to unemployment insurance recipients. High school retention and enrolment in university and community colleges increased substantially in Canada during the 1980s. (Between 1980 and 1990, for example, the grade 12 retention rate in Nova Scotia increased from 57 percent to 82 percent.) Economists have always emphasized that the opportunity cost of foregone wages is one of the major costs of continued education, and one implication of high unemployment is that education has become the counter-cyclical investment sector of the 1990s. In a relative sense, this investment in improved educational credentials is a successful strategy for individuals, as evidenced by the continued differential in unemployment rates and earning levels between university and high school graduates.

However, the other side of this coin is the fact that the increased educational qualifications of the mainstream population do not make it any easier for the disadvantaged to succeed in the competition for jobs. A relative lack of educational credentials can also make it increasingly difficult for the disadvantaged to gain access to job training. For example, although one of the intended functions of the Nova Scotia Community College system was to service the need for job-relevant training of high school dropouts, the queue of well-qualified applicants for Community College places means that grade 12 graduation is now the *de facto* entry requirement for almost all training programs.

In addition to the standard courses available at secondary schools, community colleges and universities, government also finances a wide range of special remedial services targeted on those reliant on transfers. Counselling, supported work and life skills programs are aimed at helping individuals to acquire the self-esteem, inter-personal skills and job attitudes which are even more fundamental to employability than cognitive skills. Remedial literacy programs can assist in bringing individuals to an educational level at which they can begin to assimilate training, and there are customized training modules (e.g., for clerical workers) to teach job-relevant skills, such as word processing. And for the fastest-growing segment of the social assistance population — the “Steady-Eddies” who have decades of habituation to going to work, a stable family life and no disabilities, but who also have no job and have run out of

UI — there are “job finding clubs” to help with the unfamiliar task of job search.

As part of a wider research program on social policy, I have spent some time interviewing some of the people who deliver these remedial programs. Their programs seem, in many cases, to be well-conceived and well-executed. However, although they report success in previous years, their depression and sense of futility in today’s labour market is tangible. After all, their “graduates” have to compete in the labour market with the unblemished new graduates of universities, community colleges and high schools, many of whom will take most anything today.

When the advertisement of a low-level clerical position can produce as many as 100 applications, it is not surprising that the skills taught in remedial programs (and the work history of the clients of these programs) are unattractive compared to the qualifications of other applicants. It may well be the case that remedial training programs are providing the skill set that one would reasonably expect to be actually required on the job. As well, many of the other applicants are likely to be over-qualified and would, essentially, be “under-employed.” Even so, one can hardly criticize employers for wanting to get the best possible level of skills at the going wage.

High unemployment may also affect the “internal efficiency” of retraining programs. Trainees who have a history of not succeeding in the labour market have to choose between hope and cynicism in their attitudes to training. In today’s labour market, training programs often create expectations that are subsequently not fulfilled; depression can be the result. If the response of individuals is cynicism, the efficacy of training programs can be undermined by the widespread belief of trainees that they are simply in a “holding tank” for the unemployed.

The length of time spent on social assistance, like unemployment duration or the length of a hospital stay, has a statistical distribution with a very long tail. Quite a large fraction of the population touches the social assistance system for a brief period⁷ but a few are dependent for much longer (and cost most of the money). In social assistance, as in health care, (1) a few people are *very* expensive and (2) prevention is often *much* cheaper than cure.

However, in a high unemployment environment the few tend to become many. High unemployment causes a trend toward greater numbers of the single parent families, abuse victims, psychologically dis-

abled, etc. who are at great risk of long-term dependency. At the same time, both prevention and cure become much more difficult, since it becomes harder for counselling and training programs actually to produce transitions into paid employment.

Fiscal Implications

Clearly, any society that decides to do without 10 percent of its potential income is going to have difficulty in satisfying competing demands for resources. As noted earlier, the poverty gap in Canada at relatively full employment is about 1.3 percent of GDP, while the output gap is now about 10 percent of GDP. An incremental tax of 13 percent on the increase in output from moving to full employment would entirely finance the transfer payments required to eliminate poverty in Canada. And there would be lots left over to eliminate the budget deficits of provincial and federal governments, as well as some to increase aggregate consumer expenditure.

In the popular press, one sometimes hears talk of "jobless growth" and sees references to particular firms which have increased output while decreasing employment — as if growth in labour productivity was a new phenomenon. As Figure 2 illustrates, however, the output gap and the rate of job creation depend primarily on the rate of growth of aggregate output. If output grows fast enough, unemployment will decline. As the recent history of employment in Ontario manufacturing illustrates, high real interest rates can produce capital inflows and an overvalued exchange rate that will price firms out of export markets, as occurred between 1988 to 1991. However, prices in general (and exchange rates in particular) do matter, although they operate with a lag, and the depreciation of the exchange rate from US\$0.88 to US\$0.76 has produced some resurgence in exports and in manufacturing employment. One of the advantages of being a small country is that one could allow further depreciation of the exchange rate without provoking major international retaliation.

I would argue that higher GDP growth rates and lower unemployment rates are entirely feasible. I would also argue that it is the depressed tax revenues accompanying slow growth that are primarily responsible for the currently perceived "deficit crisis." Panic over the government debt/GDP ratio constrains the resources available both for direct social transfers and for remedial social policies.

However, although in a financial sense we could “solve” the poverty problem entirely with a small proportion of the output gap, I am not arguing for “chequebook social work.” Although social assistance support rates are well below the poverty line in all provinces in Canada, and although many of the social assistance population primarily need more income (preferably through paid employment), there remains a very significant group who need more than money. For those people who have been damaged by abuse or handicapped by psychological problems or substance dependency, counselling, retraining and supported work initiatives are essential supplements to cash transfers. However, if the numbers of such casualties are not to grow, or if their training programs are to have a hope of success, lower unemployment is essential.

THE CONSISTENCY OF MACRO AND MICRO POLICY IN A FEDERAL STATE

In the recent Nova Scotia provincial election, polling data revealed that the primary concern of the electorate was unemployment. All the aspiring provincial politicians therefore promised that their party would deliver “jobs, jobs, jobs.” Each suggested that the promises of the others would be ineffective, but no one was willing to say that it is not within the power of a provincial government (especially the government of a small province) to make a major dent in unemployment within a single electoral mandate of four years.

By the Constitution of Canada, provincial governments control:

- the labour legislation that frames the industrial relations system;
- the primary, secondary and post-secondary education system that trains the labour force;
- the health care system that keeps the population healthy; and
- the delivery of social assistance.

Although Employment and Immigration Canada has a major funding role in training, it is provincial government community colleges which actually deliver most training.⁸ The “structural” policies of government which help to ensure that a healthy, well-trained and highly motivated labour force is available for business are, in Canada, *provincial responsibilities*.

Structural policies are crucial to the long run health of the Canadian economy and in the long run provincial government decisions do make a

major difference. However, it is simply not possible for structural policies to have a major impact in the short run; and since a lot of attention has been given recently to failures in the educational system, and since the issue can be fairly easily quantified, education is a good example.

Even if the best possible educational system in the world could be implemented in time for next year's opening of school, the impact of educational reform on the average quality of the labour force would be rather small in the short run because:

- the number of people who graduate from high school each year is a small percentage of the labour force (approximately 2.5 percent);
- the immediate impact of educational reform would be blunted by the fact that students have already had most of their education under the old system — it would take 12 years for a reform of primary and secondary education to have its full impact on graduates; and
- the potential benefit of educational reform is the *difference* between current educational achievement in Canada and that obtained in other countries. Although some other countries' students do better than Canadian students in international comparison testing, the differential is not huge.⁹

Believers in "quick fix" social policies who have an exaggerated idea of the size of labour supply elasticities may want to believe that changes in the implicit incentives of social policies can have a major impact in the very short run. However, there is a large econometric literature which demonstrates that labour supply elasticities are typically quite small, even for individuals who are not constrained by the availability of employment hours.¹⁰ Changing the "incentives" implicit in social assistance policies will have an impact on labour supply, but only a small impact. And it needs to be emphasized that whatever the size of the impact of lower marginal tax-back rates in social assistance and greater financial incentives to work, these policy measures affect only the desired hours of work of individuals, i.e., the supply side of labour markets. They have no direct impact on the desired employment levels of firms. And it remains true that getting a job is the *joint event* that an individual wants a job *and* a firm wants to hire him or her. In a labour market with excess supply of labour, greater incentives to labour supply only add to the excess of labour supply.

The health care, counselling, re-training and educational policies of

provincial governments can have a significant impact, over time, on labour force productivity by changing the characteristics which the clients of these programs bring to the labour market. However, since it takes a long time to affect the average characteristics of the labour force stock, these are policies with *long-term* payoffs. Provincial governments control most of the policy levers which affect long-run structural change in the labour market, but these cannot be expected to make more than a marginal impact on unemployment within a single electoral mandate. By contrast, it is clear that the swings of the business cycle can create or destroy hundreds of thousands of jobs within a one- or two-year period. The federal government can influence the timing and severity of the macroeconomic business cycle through its control over fiscal, monetary and exchange rate policy — but its control over short-run macro policy determination is matched by its frustration in influencing the long-run determinants of the “natural” rate of unemployment.

The debate on “hysteresis” in unemployment therefore has, in Canada, a particularly federalist wrinkle. Federal government decisions influence heavily the actual rate of unemployment, and higher actual unemployment creates the social casualties, firm closings, long-term unemployment, and depreciation of human capital that tend to increase the natural rate of unemployment. Provincial government social policies have to react to an increased demand for social services, a decreased availability of financial resources and a diminished probability of program success, due to the unavailability of jobs. The failure of these provincial policies increases the rate of inflation associated with any given level of unemployment, worsening the trade-off between inflation and unemployment that faces federal decision makers.

The policy problem in Canada is partly one of coordination and partly one of time consistency. Canada has the significant advantage of a relatively mobile and well-educated population to assist its adaptation to structural change — but successful adaptation by the majority has left behind an increasingly large minority. High unemployment impedes the process of structural adaptation by “chilling” the labour market, reducing the amount of voluntary labour mobility and increasing the difficulties which the disadvantaged face in gaining access to the labour market.¹¹

The question of time consistency therefore arises because the short-run reality of labour markets is not consistent with the long-run objective of structural change. The idea of “time consistency” has been used in

the macro literature in the sense that a desired long-term goal of price stability may not be consistent with the short-run incentives facing elected governments to "cash in" their inflation credibility for a short-run surge in growth (and popularity). Hence the argument is to remove governments from this temptation by entrusting inflation fighting to another body, such as a central bank. But models of representative agents and central bank credibility cannot, by construction, recognize problems of structural adaptation, hysteresis of employment, or inequality of access. The term "time consistency" is used here in the somewhat different sense of *feasibility*: since time unfolds one day at a time, one can only get to the long run through a succession of short runs. How is it possible to achieve the long-run goal of integrating the socially disadvantaged into paid employment if these people face, year after year, a labour market crowded with the competition of an excess supply of already qualified, unblemished labour? How can one expect that high unemployment, year after year, will not generate more long-term dependence on social assistance?

The problem of policy coordination arises because the failures of each level of government impede the chances that the other level of government can be successful. The policy levers that might influence the rate of long-run structural change in labour markets are almost entirely under provincial jurisdiction but their success depends heavily on whether there are any potential jobs available for the clients of counselling, retraining or mobility programs — i.e., success depends on federal macroeconomic policy. Although macroeconomic policy levers are firmly under federal control, their success depends on the effectiveness of the provincial policies that might help to prevent increases in the natural rate of unemployment. Federal government decision makers seem, however, either unable or unwilling to recognize the inter-dependence of short-run macroeconomic demand management and long-term structural change or the implications of their decisions for provincial governments.

N O T E S

1. See M. Setterfield, D.V. Gordon and L. Osberg, "Searching for a Will O' the Wisp: An Empirical Study of the NAIRU in Canada," *European Economic Review* Vol. 36 (January 1992), pp. 119-36 and L. Osberg, *Unemployment Insurance and Unemployment — Revisited*, paper presented to conference on "Unemployment: What is to be done?", Laurentian University, Sudbury, Ontario, March 26-27, 1993; Department of Economics, Dalhousie University, *Working Paper No. 93-04*, (March 1993).
2. S. James, "Hysteresis and the Natural Rate of Unemployment in Canada," paper presented at the Canadian Economics Association meetings, Kingston, Ontario, June 1991; mimeo (Ottawa: Minister of Finance, June 1991).
3. Economic Council of Canada, *Employment in the Service Economy* (Ottawa: Minister of Supply and Services, 1991).
4. National Council of Welfare, *Poverty Profile Update for 1991 and Poverty Profile 1980-1990* (Ottawa: Minister of Supply and Services, 1992).
5. See, for example, H.M. Brenner, *Mental Illness and the Economy* (Cambridge, MA: Harvard University Press, 1973) and P. Kelvin and J.E. Jarrett, *Unemployment — Its Social and Psychological Effects* (Cambridge: Cambridge University Press, 1984). In V.L. Ketso, "Work and the Welfare Costs of Unemployment," (unpublished Ph.D. thesis, Dalhousie University, 1988), the author examined a simultaneous equation model in which the relative influence of unemployment on illness and illness on unemployment could be assessed. Unemployment plays an unambiguous causal role in increasing the probability of illness.
6. A. Sharpe, "The Rise of Unemployment in Ontario," paper presented at conference "Unemployment: What is to be done?", Laurentian University, Sudbury, Ontario, March 26-27, 1993.
7. Economic Council of Canada, *The New Face of Poverty: Income Security Needs of Canadian Families* (Ottawa: Minister of Supply and Services, 1992).

8. And, of course, the road network, electrical power distribution and municipal services on which business depends are also provided at the local level. Local governments also compete in grants, tax concessions and specialized public services for marginal "foot-loose" investments. Although highly visible politically, these initiatives affect small fractions of total employment.
9. The differential in test score achievement among senior high school students is heavily influenced by the degree of selectivity of the school systems. At the age when comparable populations are being tested (in junior high), the highest achieving country (South Korea) has an average test score in science achievement 13 percent above the Canadian average, (a 9 percentage point differential — 78 percent compared to 69 percent). See IAEP (International Association of Educational Progress), *Learning Science*, Report No. 22-CAEP-02 (Princeton, NJ: Educational Testing Service, 1992). If educational reform could improve Canadian students' test scores by more than this differential, say by 15 percent, it would take at least 12 years before educational reform could have its full impact on the skill level of high school graduates. Over that period, new graduates would have come to make up about 30 percent of the labour force, but on average only half their schooling would have been under the new system — i.e., the impact on the average quality of the labour force as a whole would be, at the end of 12 years, an improvement of about 2.25 percent in educational test scores. Although, in the long run, educational reform can have a significant impact on the work force, the basic point is that there are very long lags in the impacts of educational policy.
10. A very large literature concurs in estimating the wage elasticity of labour supply at 0.1 or less. For recent evidence, using a large Canadian data set, see L. Osberg and S. Phipps, "Labour Supply with Quantity Constraints: Estimates from a Large Sample of Canadian Workers," *Oxford Economic Papers* (April 1993). Surveys of the literature are contained in S. Phipps, "Does Unemployment Insurance Increase Unemployment?", in *Canadian Business Economics*, Vol. 1, no. 3 (Spring 1993), pp. 37-50; or L. Osberg, "Behavioral Response in the Context of Socioeconomic Microanalytic Simulation," Statistics Canada, *Analytical Studies*, Research Paper No. 1 (Ottawa: Statistics Canada, 1986); or J. Pencavel, "Labour Supply of Men: A Survey," in

Orley Ashenfelter and Richard G. Layard (eds.), *Handbook of Labour Economics* (Amsterdam, NY: North Holland Press, 1986).

11. See L. Osberg, "Unemployment and Inter-Industry Mobility of Labour in Canada in the 1980s," *Applied Economics*, Vol. 23 no. 11 (November 1991), pp. 1707-18; and G. Picot and W. Pyper, *Permanent Layoffs and Displaced Workers: Cyclical Sensitivity, Concentration and Experience Following the Layoff*, Research paper #55, Business and Labour Market Analysis Group, Analytical Studies (Ottawa: Statistics Canada, 1993).